GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: December 15, 2000, 11:42:22 ; Search time 259.92 Seconds
(without alignments)
1037.726 Million cell updates/sec

Title: US-09-232-880-313
Perfect score: 718
Sequence: 1 ggagatttgtgtggtttgca.....ttaannttantccaaantgt 718

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 480022 seqs, 187831343 residues

Total number of hits satisfying chosen parameters: 960044

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_36:*
1: /SIDS6/gcgdata/geneseq/geneseqn/NA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqn/NA1981.DAT:*
3: /SIDS6/gcgdata/geneseq/geneseqn/NA1982.DAT:*
4: /SIDS6/gcgdata/geneseq/geneseqn/NA1983.DAT:*
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11: /SIDS6/gcgdata/geneseq/geneseqn/NA1990.DAT:*
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19: /SIDS6/gcgdata/geneseq/geneseqn/NA1998.DAT:*
20: /SIDS6/gcgdata/geneseq/geneseqn/NA1999.DAT:*
21: /SIDS6/gcgdata/geneseq/geneseqn/NA2000.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.		Score	% Query Match	Length	DB	ID	Description
1		708	98.6	718	21	A06545	Human immunogenic
c 2		513.2	71.5	812	21	A06690	Human immunogenic
3		513.2	71.5	820	19	V62429	Prostate cancer an
4		513.2	71.5	1872	19	V62428	Prostate cancer an
5		457.6	63.7	3112	21	A06687	Human immunogenic
c 6		457.4	63.7	2229	21	A06688	Human immunogenic
c 7		457.4	63.7	2426	21	A06689	Human immunogenic
8		457.2	63.7	2037	19	V62427	Prostate cancer an
9		457.2	63.7	3582	19	V62430	Prostate cancer an
10		289.8	40.4	359	20	Z33445	Human prostate can
11		257	35.8	597	20	X37486	Human secreted pro
c 12		93.8	13.1	301	21	A06520	Human immunogenic
13		61.4	8.6	123	19	V33791	Prostate cancer an
c 14		36.2	5.0	9473	10	N92768	HIV-2 variant HIV-
c 15		35.8	5.0	2689	20	X05230	HIV-2 genomic DNA
c 16		35.8	5.0	2819	21	Z57850	Protein regulating
c 17		35.2	4.9	16442	18	X83006	Partial mouse WRN
c 18		34.8	4.8	1185	21	A05476	Streptococcus pneu
c 19		34.8	4.8	28171	19	V52155	Streptococcus pneu
20		34.2	4.8	1830	13	Q24334	Mutant thermostabl
21		34.2	4.8	2073	13	Q24333	Mutant thermostabl
22		34.2	4.8	2265	13	Q24332	Mutant thermostabl
23		34.2	4.8	2403	13	Q24331	Mutant thermostabl
24		34.2	4.8	2568	13	Q28937	Encodes Taf DNA po
25		34.2	4.8	2571	13	Q24330	Mutant thermostabl
26		34.2	4.8	2679	13	Q24329	Mutant thermostabl
27		34.2	4.8	2679	13	Q28936	Encodes Asp37 Taf
28		34.2	4.8	4286	13	Q23917	Taf DNA polymerase
c 29		34	4.7	713	18	T63493	Type 5 17-beta-hyd
c 30		34	4.7	6088	20	X84331	Stealth virus nucl
c 31		34	4.7	910715	20	X20248	Borrelia burgdorfe
32		33.6	4.7	2147	21	Z60617	DNA encoding the p
33		33.4	4.7	3269	17	T31291	Rat poly-immunoglo
c 34		33.4	4.7	9542	20	X20260	Borrelia burgdorfe
c 35		33.2	4.6	1540	9	N80917	Sequence of the 3'
36		33.2	4.6	5181	16	Q80911	Plasmodium falcipa
37		33	4.6	281	16	T19178	Human gene signatu
c 38		32.6	4.5	267	20	X99598	Nucleic acid seque
39		32.6	4.5	1285	17	T12173	Partial pJG4-5-CDK
40		32.6	4.5	1285	17	T12174	Partial pJG4-5-CDK
41		32.6	4.5	9183	19	V60751	HIV-1 strain YBF30
c 42		32.6	4.5	9360	11	Q02830	cDNA to HIV-2 RNA.
c 43		32.6	4.5	9630	21	Z89628	HIV-2 ROD DNA. Hu
c 44		32.6	4.5	9643	9	N80859	Sequence of entire
45		32.4	4.5	552	20	X84338	Stealth virus nucl

ALIGNMENTS

RESULT 1
A06545
ID A06545 standard; cDNA; 718 BP.
XX
AC A06545;
XX
DT 13-JUN-2000 (first entry)
XX
DE Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:313.
XX
KW Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW immunogenic; cytostatic; vaccine; ss.
XX
OS Homo sapiens.
XX
PN WO200004149-A2.
XX
PD 27-JAN-2000.
XX
PF 14-JUL-1999; 99WO-US15838.
XX
PR 14-JUL-1998; 98US-0115453.
PR 14-JUL-1998; 98US-0116134.
PR 23-SEP-1998; 98US-0159812.
PR 23-SEP-1998; 98US-0159822.
PR 15-JAN-1999; 99US-0232149.
PR 15-JAN-1999; 99US-0232880.
PR 09-APR-1999; 99US-0288946.
XX
PA (CORI-) CORIXA CORP.
XX
PI Dillon DC, Harlocker SL, Yuqiu J, Xu J, Mitcham JL;
XX
DR WPI; 2000-171268/15.
XX

```
PT   New polypeptide useful for treating and diagnosing prostate cancer
PT   comprises an immunogenic portion of prostate tumor protein -
XX
PS   Claim 1; Page 199-200; 263pp; English.
XX
CC   The present invention describes isolated polypeptides, comprising an
CC   immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC   and polynucleotides encoding them have cytostatic activity and can be
CC   used in vaccines and in gene therapy. The polypeptides and
CC   polynucleotides encoding them, antigen presenting cells which express
CC   the polypeptides, antibodies against the polypeptides and vaccines
CC   comprising them can be used for inhibiting the development of prostate
CC   cancer in a patient. The polypeptides can be used to generate antibodies
CC   or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC   the polynucleotides encoding the polypeptides can be used as a probe or
CC   to modulate the expression of the polypeptides. A06241 to A06691 and
CC   Y82000 to Y82020 represent sequences used in the exemplification of the
CC   present invention.
XX
SQ   Sequence 718 BP; 222 A; 145 C; 169 G; 172 T; 10 other;

  Query Match             98.6%;  Score 708;  DB 21;  Length 718;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-208;
  Matches  718;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ggagatttgtgtggtttgcagccgagggagaccaggaagatctgcatggtgggaaggacc 60
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Qy     61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120
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Db     61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120

Qy    121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180
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Db    121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180

Qy    181 gtagtgacatgtttttgcacatttccagccctttttaaatatccacacacacaggaagcac 240
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Db    181 gtagtgacatgtttttgcacatttccagccctttttaaatatccacacacacaggaagcac 240

Qy    241 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 300
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Qy    301 gcctcgccctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtg 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 gcctcgccctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtg 360

Qy    361 ttccttaaaggatggcaggaaaacagatcctgttgtggatatttatttgaacgggattac 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 ttccttaaaggatggcaggaaaacagatcctgttgtggatatttatttgaacgggattac 420

Qy    421 agatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaat 480
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Db    421 agatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaat 480

Qy    481 cttgatggttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgagcagcc 540
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Db    481 cttgatggttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgagcagcc 540

Qy    541 aactggggaggagataccacggggcagaggtcaggattctggccctgctgcctaactgtg 600
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Db    541 aactggggaggagataccacggggcagaggtcaggattctggccctgctgcctaactgtg 600

Qy    601 cgttataccaatcatttctatttctaccctcaaacaagctgtngaatatctgacttacgg 660
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Qy    661 ttcttntggcccacattttcatnatccacccccntcnttttaannttantccaaantgt 718
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```

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RESULT   2
A06690/c
ID   A06690 standard; cDNA; 812 BP.
XX
AC   A06690;
XX
DT   13-JUN-2000  (first entry)
XX
DE   Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:471.
XX
KW   Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW   immunogenic; cytostatic; vaccine; ss.
XX
OS   Homo sapiens.
XX
PN   WO200004149-A2.
XX
PD   27-JAN-2000.
XX
PF   14-JUL-1999;   99WO-US15838.
XX
PR   14-JUL-1998;   98US-0115453.
PR   14-JUL-1998;   98US-0116134.
PR   23-SEP-1998;   98US-0159812.
PR   23-SEP-1998;   98US-0159822.
PR   15-JAN-1999;   99US-0232149.
PR   15-JAN-1999;   99US-0232880.
PR   09-APR-1999;   99US-0288946.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Dillon DC,  Harlocker SL,  Yuqiu J,  Xu J,  Mitcham JL;
XX
DR   WPI; 2000-171268/15.
XX
PT   New polypeptide useful for treating and diagnosing prostate cancer
PT   comprises an immunogenic portion of prostate tumor protein -
XX
PS   Claim 1; Page 262; 263pp; English.
XX
CC   The present invention describes isolated polypeptides, comprising an
CC   immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC   and polynucleotides encoding them have cytostatic activity and can be
CC   used in vaccines and in gene therapy. The polypeptides and
CC   polynucleotides encoding them, antigen presenting cells which express
CC   the polypeptides, antibodies against the polypeptides and vaccines
CC   comprising them can be used for inhibiting the development of prostate
CC   cancer in a patient. The polypeptides can be used to generate antibodies
CC   or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC   the polynucleotides encoding the polypeptides can be used as a probe or
CC   to modulate the expression of the polypeptides. A06241 to A06691 and
CC   Y82000 to Y82020 represent sequences used in the exemplification of the
CC   present invention.
XX
SQ   Sequence 812 BP; 198 A; 189 C; 169 G; 256 T; 0 other;

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  Matches  585;  Conservative    0;  Mismatches    9;  Indels    7;  Gaps    6;

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Qy     61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120
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Qy    121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180
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Db    672 CTGCTGAAATGGAGATAATTAACATCACTAGAAACAGCAAGATGACAATATAATGTCTAA 613

Qy    181 gtagtgacatgtttttgcacatttccagccctttaaatatccacacacacaggaagcac 240
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Db    612 GTAGTGACATGTTTTTGCACATTTCCAGCCCCTTTAAATATCCACACACACAGGAAGCAC 553

Qy    241 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 300
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Db    492 GCCTCGCCCTGTGCCTGGTCCCGCTTGTGAGGGAAGGACATTAGAAAATGAATTGATGTG 433

Qy    361 ttccttaaaggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggatta 419
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Qy    420 cagatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaa 479
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Qy    480 tcttgatgg-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--c 536
          ||||||||| |||||||||||||||||||||||||||||||||||||||||||| |||
Db    312 TCTTGATGGCTTCACAAGACATGCAACAAACAAAATGGAATACTGTGATGACATGAGGCA 253

Qy    537 agccaactggggaggagat-accacggggcaga-ggtcaggattctggccctgctgccta 594
            | | |||||||||||||| |||||||||||| ||||||||||||||||||||||||||
Db    252 GCCAAGCTGGGGAGGAGATAACCACGGGGCAGAGGGTCAGGATTCTGGCCCTGCTGCCTA 193

Qy    595 a 595
          |
Db    192 A 192
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```
RESULT   3
V62429
ID   V62429 standard; cDNA; 820 BP.
XX
AC   V62429;
XX
DT   30-DEC-1998  (first entry)
XX
DE   Prostate cancer antigen (PCA3) cDNA splice variant 3.
XX
KW   Prostate cancer antigen cDNA splice variant 3; PCA3; prostatic cancer;
KW   PC; ds.
XX
OS   Homo sapiens.
XX
PN   WO9845420-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-CA00346.
XX
PR   10-APR-1997;   97US-0041836.
XX
PA   (DIAG-) DIAGNOCURE INC.
XX
PI   Bussemakers MJG;
XX
DR   WPI; 1998-568347/48.
XX
PT   New nucleic acid encoding prostate cancer antigen 3 - for diagnosis,
PT   prevention and treatment of prostatic cancer
XX
PS   Claim 4; Pages 77-78; 111pp; English.
XX
CC   The present sequence represents the prostate cancer antigen (PCA3)
CC   cDNA splice variant 3 sequence comprising of exons 1, 3, and 4a
CC   of the PCA3 gene.  The PCA3 cDNA splice variant 3 sequence,
CC   isolated from a human primary prostatic tumour tissue cDNA library,
CC   was found in approximately 15% of the cDNA clones isolated.  The
CC   invention claims for PCA3 cDNA variants and the proteins they encode.
CC   The invention also claims for antibodies against PCA3 protein.  The
CC   antibodies are claimed to be useful for detecting PCA3 protein in
CC   immunoassay tests, for diagnosing, assessing and prognosing of
CC   prostatic cancer (PC).  Antibodies, optionally coupled to a cytotoxin
CC   or radioisotope, and nucleic acids antisense to PCA3 cDNA are claimed
CC   to be useful for treating PC, while determining elevated levels of
CC   PCA3 (as RNA or protein) is useful for detecting a predisposition
CC   to development of PC, e.g. in prenatal tests.  Detecting PCA3 protein
CC   allows differentiation between malignant and benign prostatic disease,
CC   and the level of PCA3 expression allows correlation with the grade of
CC   tumour.  PCA3 protein and its fragments are also claimed to be useful
CC   in vaccines for preventing PC; in drug screens for identifying
CC   specific (ant)agonists (potentially useful therapeutically) and for
CC   studying protein-DNA interactions.
XX
SQ   Sequence 820 BP; 262 A; 169 C; 191 G; 198 T; 0 other;
```

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  Query Match             71.5%;  Score 513.2;  DB 19;  Length 820;
  Best Local Similarity   97.3%;  Pred. No. 2.3e-148;
  Matches  585;  Conservative    0;  Mismatches    9;  Indels    7;  Gaps    6;

Qy      1 ggagatttgtgtggtttgcagccgagggagaccaggaagatctgcatggtgggaaggacc 60
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Db     27 ggagatttgtgtgg-ctgcagccgagggagaccaggaagatctgcatggtgggaaggacc 85

Qy     61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     86 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 145

Qy    121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    146 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 205

Qy    181 gtagtgacatgtttttgcacatttccagccctttaaatatccacacacacaggaagcac 240
          |||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||
Db    206 gtagtgacatgtttttgcacatttccagccctttaaatatccacacacacaggaagcac 265

Qy    241 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    266 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 325

Qy    301 gcctcgccctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtg 360
          ||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db    326 gcctcgccctgtgcctggtcccgcttgtgagggaaggacattagaaaatgaattgatgtg 385

Qy    361 ttccttaaaggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggatta 419
          |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db    386 ttccttaaaggatgggcaggaaaacagatcctgttgtggatatttatttgaacgggatta 445

Qy    420 cagatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaa 479
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    446 cagatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaa 505

Qy    480 tcttgatgg-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--c 536
          ||||||||| |||||||||||||||||||||||||||||||||||||||||||| |||
Db    506 tcttgatggcttcacaagacatgcaacaaacaaaatggaatactgtgatgacatgaggca 565

Qy    537 agccaactggggaggagat-accacggggcaga-ggtcaggattctggccctgctgccta 594
            | | |||||||||||||| |||||||||||| ||||||||||||||||||||||||||
Db    566 gccaagctggggaggagataaccacggggcagagggtcaggattctggccctgctgccta 625

Qy    595 a 595
          |
Db    626 a 626
```

```
RESULT   4
V62428
ID   V62428 standard; cDNA; 1872 BP.
XX
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```
AC   V62428;
XX
DT   30-DEC-1998  (first entry)
XX
DE   Prostate cancer antigen (PCA3) cDNA splice variant 2.
XX
KW   Prostate cancer antigen cDNA splice variant 2; PCA3; prostatic cancer;
KW   PC; ds.
XX
OS   Homo sapiens.
XX
PN   WO9845420-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-CA00346.
XX
PR   10-APR-1997;   97US-0041836.
XX
PA   (DIAG-) DIAGNOCURE INC.
XX
PI   Bussemakers MJG;
XX
DR   WPI; 1998-568347/48.
XX
PT   New nucleic acid encoding prostate cancer antigen 3 - for diagnosis,
PT   prevention and treatment of prostatic cancer
XX
PS   Claim 4; Pages 76-77; 111pp; English.
XX
CC   The present sequence represents the prostate cancer antigen (PCA3)
CC   cDNA splice variant 2 sequence comprising of exons 1, 3, 4a and
CC   4b of the PCA3 gene.  The PCA3 cDNA splice variant 2 sequence,
CC   isolated from a human primary prostatic tumour tissue cDNA library,
CC   was found in approximately 65% of the cDNA clones isolated.  The
CC   invention claims for PCA3 cDNA variants and the proteins they encode.
CC   The invention also claims for antibodies against PCA3 protein.  The
CC   antibodies are claimed to be useful for detecting PCA3 protein in
CC   immunoassay tests, for diagnosing, assessing and prognosing of
CC   prostatic cancer (PC).  Antibodies, optionally coupled to a cytotoxin
CC   or radioisotope, and nucleic acids antisense to PCA3 cDNA are claimed
CC   to be useful for treating PC, while determining elevated levels of
CC   PCA3 (as RNA or protein) is useful for detecting a predisposition
CC   to development of PC, e.g. in prenatal tests.  Detecting PCA3 protein
CC   allows differentiation between malignant and benign prostatic disease,
CC   and the level of PCA3 expression allows correlation with the grade of
CC   tumour.  PCA3 protein and its fragments are also claimed to be useful
CC   in vaccines for preventing PC; in drug screens for identifying
CC   specific (ant)agonists (potentially useful therapeutically) and for
CC   studying protein-DNA interactions.
XX
SQ   Sequence 1872 BP; 567 A; 389 C; 369 G; 539 T; 8 other;

  Query Match             71.5%;  Score 513.2;  DB 19;  Length 1872;
  Best Local Similarity   97.3%;  Pred. No. 3.6e-148;
  Matches  585;  Conservative    0;  Mismatches    9;  Indels    7;  Gaps    6;

Qy      1 ggagatttgtgtggtttgcagccgagggagaccaggaagatctgcatggtgggaaggacc 60
          ||||||||||||||  ||||||||||||||||||||||||||||||||||||||||||
Db     27 ggagatttgtgtgg-ctgcagccgagggagaccaggaagatctgcatggtgggaaggacc 85

Qy     61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     86 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 145

Qy    121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    146 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 205

Qy    181 gtagtgacatgtttttgcacatttccagccctttaaatatccacacacacaggaagcac 240
          ||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||
Db    206 gtagtgacatgtttttgcacatttccagccctttaaatatccacacacacaggaagcac 265

Qy    241 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    266 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 325

Qy    301 gcctcgccctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtg 360
          |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db    326 gcctcgccctgtgcctggtcccgcttgtgagggaaggacattagaaaatgaattgatgtg 385

Qy    361 ttccttaaaggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggatta 419
          |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db    386 ttccttaaaggatgggcaggaaaacagatcctgttgtggatatttatttgaacgggatta 445

Qy    420 cagatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaa 479
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    446 cagatttgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaa 505

Qy    480 tcttgatgg-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--c 536
          ||||||||| |||||||||||||||||||||||||||||||||||||||||||| |||
Db    506 tcttgatggcttcacaagacatgcaacaaacaaaatggaatactgtgatgacatgaggca 565

Qy    537 agccaactggggaggagat-accacggggcaga-ggtcaggattctggccctgctgccta 594
            | | |||||||||||||| |||||||||||| ||||||||||||||||||||||||||
Db    566 gccaagctggggaggagataaccacggggcagagggtcaggattctggccctgctgccta 625

Qy    595 a 595
          |
Db    626 a 626


RESULT   5
A06687
ID   A06687 standard; cDNA; 3112 BP.
XX
AC   A06687;
XX
DT   13-JUN-2000  (first entry)
XX
DE   Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:468.
XX
KW   Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW   immunogenic; cytostatic; vaccine; ss.
XX
OS   Homo sapiens.
XX
PN   WO200004149-A2.
XX
PD   27-JAN-2000.
XX
PF   14-JUL-1999;   99WO-US15838.
XX
PR   14-JUL-1998;   98US-0115453.
PR   14-JUL-1998;   98US-0116134.
PR   23-SEP-1998;   98US-0159812.
PR   23-SEP-1998;   98US-0159822.
PR   15-JAN-1999;   99US-0232149.
PR   15-JAN-1999;   99US-0232880.
PR   09-APR-1999;   99US-0288946.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Dillon DC,  Harlocker SL,  Yuqiu J,  Xu J,  Mitcham JL;
XX
DR   WPI; 2000-171268/15.
XX
PT   New polypeptide useful for treating and diagnosing prostate cancer
PT   comprises an immunogenic portion of prostate tumor protein -
XX
PS   Claim 1; Page 259-260; 263pp; English.
XX
CC   The present invention describes isolated polypeptides, comprising an
CC   immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC   and polynucleotides encoding them have cytostatic activity and can be
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CC   used in vaccines and in gene therapy. The polypeptides and
CC   polynucleotides encoding them, antigen presenting cells which express
CC   the polypeptides, antibodies against the polypeptides and vaccines
CC   comprising them can be used for inhibiting the development of prostate
CC   cancer in a patient. The polypeptides can be used to generate antibodies
CC   or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC   the polynucleotides encoding the polypeptides can be used as a probe or
CC   to modulate the expression of the polypeptides. A06241 to A06691 and
CC   Y82000 to Y82020 represent sequences used in the exemplification of the
CC   present invention.
XX
SQ   Sequence 3112 BP; 975 A; 587 C; 624 G; 926 T; 0 other;


  Query Match             63.7%;  Score 457.6;  DB 21;  Length 3112;
  Best Local Similarity   97.0%;  Pred. No. 6.3e-131;
  Matches  519;  Conservative    0;  Mismatches   10;  Indels    6;  Gaps    5;

Qy      67 tacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctg 126
           || | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1307 taaataggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctg 1366

Qy     127 aaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtg 186
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1367 aaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtg 1426

Qy     187 acatgtttttgcacatttccagccctttaaatatccacacacacaggaagcacaaaagg 246
           |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db    1427 acatgtttttgcacatttccagccctttaaatatccacacacacaggaagcacaaaagg 1486

Qy     247 aagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcg 306
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1487 aagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcg 1546

Qy     307 ccctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtgttcctt 366
           |||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db    1547 ccctgtgcctggtcccgcttgtgagggaaggacattagaaaatgaattgatgtgttcctt 1606

Qy     367 aaaggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatt 425
           ||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1607 aaaggatgggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatt 1666

Qy     426 tgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttga 485
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1667 tgaaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttga 1726

Qy     486 tgg-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--cagccaa 542
           ||| |||||||||||||||||||||||||||||||||||||||||||||| |||     | |
Db    1727 tggcttcacaagacatgcaacaaacaaaatggaatactgtgatgacatgaggcagccaag 1786

Qy     543 ctggggaggagat-accacggggcaga-ggtcaggattctggccctgctgcctaa 595
           ||||||||||||| |||||||||||| ||||||||||||||||||||||||||||
Db    1787 ctggggaggagataaccacggggcagagggtcaggattctggccctgctgcctaa 1841


RESULT   6
A06688/c
ID   A06688 standard; cDNA; 2229 BP.
XX
AC   A06688;
XX
DT   13-JUN-2000  (first entry)
XX
DE   Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:469.
XX
KW   Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW   immunogenic; cytostatic; vaccine; ss.
XX
OS   Homo sapiens.
XX
PN   WO200004149-A2.
XX
PD   27-JAN-2000.
XX
PF   14-JUL-1999;   99WO-US15838.
XX
PR   14-JUL-1998;   98US-0115453.
PR   14-JUL-1998;   98US-0116134.
PR   23-SEP-1998;   98US-0159812.
PR   23-SEP-1998;   98US-0159822.
PR   15-JAN-1999;   99US-0232149.
PR   15-JAN-1999;   99US-0232880.
PR   09-APR-1999;   99US-0288946.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Dillon DC,  Harlocker SL,  Yuqiu J,  Xu J,  Mitcham JL;
XX
DR   WPI; 2000-171268/15.
XX
PT   New polypeptide useful for treating and diagnosing prostate cancer
PT   comprises an immunogenic portion of prostate tumor protein -
XX
PS   Claim 1; Page 260-261; 263pp; English.
XX
CC   The present invention describes isolated polypeptides, comprising an
CC   immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC   and polynucleotides encoding them have cytostatic activity and can be
CC   used in vaccines and in gene therapy. The polypeptides and
CC   polynucleotides encoding them, antigen presenting cells which express
CC   the polypeptides, antibodies against the polypeptides and vaccines
CC   comprising them can be used for inhibiting the development of prostate
CC   cancer in a patient. The polypeptides can be used to generate antibodies
CC   or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC   the polynucleotides encoding the polypeptides can be used as a probe or
CC   to modulate the expression of the polypeptides. A06241 to A06691 and
CC   Y82000 to Y82020 represent sequences used in the exemplification of the
CC   present invention.
XX
SQ   Sequence 2229 BP; 654 A; 447 C; 481 G; 647 T; 0 other;


  Query Match             63.7%;  Score 457.4;  DB 21;  Length 2229;
  Best Local Similarity   94.1%;  Pred. No. 6.1e-131;
  Matches  529;  Conservative    0;  Mismatches   27;  Indels    6;  Gaps    5;

Qy      40 atctgcatggtgggaaggacctgatgatacagaggtgagaaataagaaaggctgctgact 99
           || ||  |  |   | || | |   ||    ||||||||||||||||||||||||||||
Db    1808 ATTTGTCTCCTCAAATGGTCGTATGTATTTCCAGGTGAGAAATAAGAAAGGCTGCTGACT 1749

Qy     100 ttaccatctgaggccacacatctgctgaaatggagataattaacatcactagaaacagca 159
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1748 TTACCATCTGAGGCCACACATCTGCTGAAATGGAGATAATTAACATCACTAGAAACAGCA 1689

Qy     160 agatgacaatataatgtctaagtagtgacatgtttttgcacatttccagccctttaaat 219
           |||||||||||||||||||||||||||||||||||||||||||||||||||| |||||||
Db    1688 AGATGACAATATAATGTCTAAGTAGTGACATGTTTTTGCACATTTCCAGCCCCTTTAAAT 1629

Qy     220 atccacacacacaggaagcacaaaaggaagcacagagatccctgggagaaatgcccggcc 279
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1628 ATCCACACACACAGGAAGCACAAAAGGAAGCACAGAGATCCCTGGGAGAAATGCCCGGCC 1569

Qy     280 gccatcttgggtcatcgatgagcctcgccctgtgcctgntcccgcttgtgagggaaggac 339
           |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db    1568 GCCATCTTGGGTCATCGATGAGCCTCGCCCTGTGCCTGGTCCCGCTTGTGAGGGAAGGAC 1509

Qy     340 attagaaaatgaattgatgtgttccttaaaggat-ggcaggaaaacagatcctgttgtgg 398
           |||||||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db    1508 ATTAGAAAATGAATTGATGTGTTCCTTAAAGGATGGGCAGGAAAACAGATCCTGTTGTGG 1449

Qy     399 atatttatttgaacgggattacagatttgaaatgaagtcacaaagtgagcattaccaatg 458
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1448 ATATTTATTTGAACGGGATTACAGATTTGAAATGAAGTCACAAAGTGAGCATTACCAATG 1389

Qy     459 agaggaaaacagacgagaaaatcttgatgg-ttcacaagacatgcaacaaacaaaatgga 517
           |||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
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Db    1388 AGAGGAAAACAGACGAGAAAATCTTGATGGCTTCACAAGACATGCAACAAACAAAATGGA 1329

Qy     518 atactgtgatgacacgag--cagccaactggggaggagat-accacggggcaga-ggtca 573
           ||||||||||||||| |||     | | |||||||||||||| |||||||||||| |||||
Db    1328 ATACTGTGATGACATGAGGCAGCCAAGCTGGGGAGGAGATAACCACGGGGCAGAGGGTCA 1269

Qy     574 ggattctggccctgctgcctaa 595
           |||||||||||||||||||||||
Db    1268 GGATTCTGGCCCTGCTGCCTAA 1247


RESULT   7
A06689/c
ID   A06689 standard; cDNA; 2426 BP.
XX
AC   A06689;
XX
DT   13-JUN-2000  (first entry)
XX
DE   Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:470.
XX
KW   Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW   immunogenic; cytostatic; vaccine; ss.
XX
OS   Homo sapiens.
XX
PN   WO200004149-A2.
XX
PD   27-JAN-2000.
XX
PF   14-JUL-1999;   99WO-US15838.
XX
PR   14-JUL-1998;   98US-0115453.
PR   14-JUL-1998;   98US-0116134.
PR   23-SEP-1998;   98US-0159812.
PR   23-SEP-1998;   98US-0159822.
PR   15-JAN-1999;   99US-0232149.
PR   15-JAN-1999;   99US-0232880.
PR   09-APR-1999;   99US-0288946.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Dillon DC,  Harlocker SL,  Yuqiu J,  Xu J,  Mitcham JL;
XX
DR   WPI; 2000-171268/15.
XX
PT   New polypeptide useful for treating and diagnosing prostate cancer
PT   comprises an immunogenic portion of prostate tumor protein -
XX
PS   Claim 1; Page 261-262; 263pp; English.
XX
CC   The present invention describes isolated polypeptides, comprising an
CC   immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC   and polynucleotides encoding them have cytostatic activity and can be
CC   used in vaccines and in gene therapy. The polypeptides and
CC   polynucleotides encoding them, antigen presenting cells which express
CC   the polypeptides, antibodies against the polypeptides and vaccines
CC   comprising them can be used for inhibiting the development of prostate
CC   cancer in a patient. The polypeptides can be used to generate antibodies
CC   or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC   the polynucleotides encoding the polypeptides can be used as a probe or
CC   to modulate the expression of the polypeptides. A06241 to A06691 and
CC   Y82000 to Y82020 represent sequences used in the exemplification of the
CC   present invention.
XX
SQ   Sequence 2426 BP; 717 A; 476 C; 548 G; 685 T; 0 other;


  Query Match           63.7%;  Score 457.4;  DB 21;  Length 2426;
  Best Local Similarity  94.1%;  Pred. No. 6.3e-131;
  Matches  529;  Conservative    0;  Mismatches   27;  Indels    6;  Gaps    5;

Qy      40 atctgcatggtgggaaggacctgatgatacagaggtgagaaataagaaaggctgctgact 99
           || ||  |  |   | || | |    ||    ||||||||||||||||||||||||||
Db    1802 ATTTGTCTCCTCAAATGGTCGTATGTATTTCCAGGTGAGAAATAAGAAAGGCTGCTGACT 1743

Qy     100 ttaccatctgaggccacacatctgctgaaatggagataattaacatcactagaaacagca 159
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1742 TTACCATCTGAGGCCACACATCTGCTGAAATGGAGATAATTAACATCACTAGAAACAGCA 1683

Qy     160 agatgacaatataatgtctaagtagtgacatgtttttgcacatttccagccctttaaat 219
           ||||||||||||||||||||||||||||||||||||||||||||||||||| |||||||
Db    1682 AGATGACAATATAATGTCTAAGTAGTGACATGTTTTTGCACATTTCCAGCCCCTTTAAAT 1623

Qy     220 atccacacacacaggaagcacaaaaggaagcacagagatccctgggagaaatgcccggcc 279
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1622 ATCCACACACACAGGAAGCACAAAAGGAAGCACAGAGATCCCTGGGAGAAATGCCCGGCC 1563

Qy     280 gccatcttgggtcatcgatgagcctcgccctgtgcctgntcccgcttgtgagggaaggac 339
           |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db    1562 GCCATCTTGGGTCATCGATGAGCCTCGCCCTGTGCCTGGTCCCGCTTGTGAGGGAAGGAC 1503

Qy     340 attagaaaatgaattgatgtgttccttaaaggat-ggcaggaaaacagatcctgttgtgg 398
           |||||||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db    1502 ATTAGAAAATGAATTGATGTGTTCCTTAAAGGATGGGCAGGAAAACAGATCCTGTTGTGG 1443

Qy     399 atatttatttgaacgggattacagatttgaaatgaagtcacaaagtgagcattaccaatg 458
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1442 ATATTTATTTGAACGGGATTACAGATTTGAAATGAAGTCACAAAGTGAGCATTACCAATG 1383

Qy     459 agaggaaaacagacgagaaaatcttgatgg-ttcacaagacatgcaacaaacaaaatgga 517
           |||||||||||||||||||||||||||||| |||||||||||||||||||||||||||||
Db    1382 AGAGGAAAACAGACGAGAAAATCTTGATGGCTTCACAAGACATGCAACAAACAAAATGGA 1323

Qy     518 atactgtgatgacacgag--cagccaactggggaggagat-accacggggcaga-ggtca 573
           |||||||||||||| |||     | | |||||||||||| |||||||||||| |||||
Db    1322 ATACTGTGATGACATGAGGCAGCCAAGCTGGGGAGGAGATAACCACGGGGCAGAGGGTCA 1263

Qy     574 ggattctggccctgctgcctaa 595
           |||||||||||||||||||||||
Db    1262 GGATTCTGGCCCTGCTGCCTAA 1241


RESULT   8
V62427
ID   V62427 standard; cDNA; 2037 BP.
XX
AC   V62427;
XX
DT   30-DEC-1998  (first entry)
XX
DE   Prostate cancer antigen (PCA3) cDNA splice variant 1.
XX
KW   Prostate cancer antigen cDNA splice variant 1; PCA3; prostatic cancer;
KW   PC; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             379..534
FT                   /*tag=  a
FT                   /product= "PCA3 protein variant 1"
FT   polyA_signal    2019..2024
FT                   /*tag=  b
XX
PN   WO9845420-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-CA00346.
XX
PR   10-APR-1997;   97US-0041836.
XX
PA   (DIAG-) DIAGNOCURE INC.
XX
PI   Bussemakers MJG;
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XX
DR   WPI; 1998-568347/48.
DR   P-PSDB; W79736.
XX
PT   New nucleic acid encoding prostate cancer antigen 3 - for diagnosis,
PT   prevention and treatment of prostatic cancer
XX
PS   Claim 3; Fig 2B-2J; 111pp; English.
XX
CC   The present sequence represents the prostate cancer antigen (PCA3)
CC   cDNA splice variant 1 sequence comprising of exons 1, 2, 3, 4a and
CC   4b of the PCA3 gene.  The PCA3 cDNA splice variant 1 sequence,
CC   isolated from a human primary prostatic tumour tissue cDNA library,
CC   was found in approximately 5% of the cDNA clones isolated.  The
CC   invention claims for PCA3 cDNA variants and the proteins they encode.
CC   The invention also claims for antibodies against PCA3 protein.  The
CC   antibodies are claimed to be useful for detecting PCA3 protein in
CC   immunoassay tests, for diagnosing, assessing and prognosing of
CC   prostatic cancer (PC).  Antibodies, optionally coupled to a cytotoxin
CC   or radioisotope, and nucleic acids antisense to PCA3 cDNA are claimed
CC   to be useful for treating PC, while determining elevated levels of
CC   PCA3 (as RNA or protein) is useful for detecting a predisposition
CC   to development of PC, e.g. in prenatal tests.  Detecting PCA3 protein
CC   allows differentiation between malignant and benign prostatic disease,
CC   and the level of PCA3 expression allows correlation with the grade of
CC   tumour.  PCA3 protein and its fragments are also claimed to be useful
CC   in vaccines for preventing PC; in drug screens for identifying
CC   specific (ant)agonists (potentially useful therapeutically) and for
CC   studying protein-DNA interactions.
XX
SQ   Sequence 2037 BP; 622 A; 426 C; 406 G; 575 T; 8 other;


  Query Match           63.7%;  Score 457.2;  DB 19;  Length 2037;
  Best Local Similarity  97.2%;  Pred. No. 6.7e-131;
  Matches  518;  Conservative    0;  Mismatches    9;  Indels    6;  Gaps    5;

Qy      69 cagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctgaa 128
           ||| |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     259 caggggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctgaa 318

Qy     129 atggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtgac 188
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     319 atggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtgac 378

Qy     189 atgtttttgcacatttccagccctttttaaatatccacacacacaggaagcacaaaaggaa 248
           |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db     379 atgtttttgcacatttccagccctttaaatatccacacacacaggaagcacaaaaggaa 438

Qy     249 gcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcgcc 308
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     439 gcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcgcc 498

Qy     309 ctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtgttccttaa 368
           ||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db     499 ctgtgcctggtcccgcttgtgagggaaggacattagaaaatgaattgatgtgttccttaa 558

Qy     369 aggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatttg 427
           ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     559 aggatgggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatttg 618

Qy     428 aaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttgatg 487
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     619 aaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttgatg 678

Qy     488 g-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--cagccaact 544
           | |||||||||||||||||||||||||||||||||||||||||||| |||     | | ||
Db     679 gcttcacaagacatgcaacaaacaaaatggaatactgtgatgacatgaggcagccaagct 738

Qy     545 ggggaggagat-accacggggcaga-ggtcaggattctggccctgctgcctaa 595
           |||||||||| |||||||||||| ||||||||||||||||||||||||||||
Db     739 ggggaggagataaccacggggcagagggtcaggattctggccctgctgcctaa 791
```

```
RESULT   9
V62430
ID   V62430 standard; cDNA; 3582 BP.
XX
AC   V62430;
XX
DT   30-DEC-1998  (first entry)
XX
DE   Prostate cancer antigen (PCA3) wild-type cDNA.
XX
KW   Prostate cancer antigen cDNA; PCA3; prostatic cancer;
KW   PC; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             401..556
FT                   /*tag= a
FT                   /product= "PCA3 protein"
FT   polyA_signal    983..987
FT                   /*tag= b
FT   polyA_signal    2041..2046
FT                   /*tag= c
FT   polyA_signal    2597..2602
FT                   /*tag= d
FT   polyA_signal    3494..3496
FT                   /*tag= e
XX
PN   WO9845420-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-CA00346.
XX
PR   10-APR-1997;   97US-0041836.
XX
PA   (DIAG-) DIAGNOCURE INC.
XX
PI   Bussemakers MJG;
XX
DR   WPI; 1998-568347/48.
DR   P-PSDB; W79738.
XX
PT   New nucleic acid encoding prostate cancer antigen 3 - for diagnosis,
PT   prevention and treatment of prostatic cancer
XX
PS   Claim 3; Fig 5B-5F; 111pp; English.
XX
CC   The present sequence represents the prostate cancer antigen (PCA3)
CC   wild-type cDNA sequence comprising of exons 1, 2, 3, 4a-4d of the
CC   PCA3 gene.  The invention claims for PCA3 cDNA variants and the
CC   proteins they encode.  The invention also claims for antibodies
CC   against PCA3 protein.  The antibodies are claimed to be useful for
CC   detecting PCA3 protein in immunoassay tests, for diagnosing, assessing
CC   and prognosing of prostatic cancer (PC).  Antibodies, optionally
CC   coupled to a cytotoxin or radioisotope, and nucleic acids antisense
CC   to PCA3 cDNA are claimed to be useful for treating PC, while determining
CC   elevated levels of PCA3 (as RNA or protein) is useful for detecting a
CC   predisposition to development of PC, e.g. in prenatal tests.  Detecting
CC   PCA3 protein allows differentiation between malignant and benign
CC   prostatic disease, and the level of PCA3 expression allows correlation
CC   with the grade of tumour.  PCA3 protein and its fragments are also
CC   claimed to be useful in vaccines for preventing PC; in drug screens
CC   for identifying specific (ant)agonists (potentially useful
CC   therapeutically) and for studying protein-DNA interactions.
XX
SQ   Sequence 3582 BP; 1052 A; 788 C; 679 G; 1063 T; 0 other;


  Query Match           63.7%;  Score 457.2;  DB 19;  Length 3582;
  Best Local Similarity  97.2%;  Pred. No. 8.9e-131;
  Matches  518;  Conservative    0;  Mismatches    9;  Indels    6;  Gaps    5;
```

```
Qy      69 cagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctgaa 128
           ||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     281 caggggtgagaaataagaaaggctgctgactttaccatctgaggccacacatctgctgaa 340

Qy     129 atggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtgac 188
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     341 atggagataattaacatcactagaaacagcaagatgacaatataatgtctaagtagtgac 400

Qy     189 atgtttttgcacatttccagccctttttaaatatccacacacacaggaagcacaaaaggaa 248
           ||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db     401 atgtttttgcacatttccagccccttttaaatatccacacacacaggaagcacaaaaggaa 460

Qy     249 gcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcgcc 308
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     461 gcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatgagcctcgcc 520

Qy     309 ctgtgcctgntcccgcttgtgagggaaggacattagaaaatgaattgatgtgttccttaa 368
           |||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     521 ctgtgcctggtcccgcttgtgagggaaggacattagaaaatgaattgatgtgttccttaa 580

Qy     369 aggat-ggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatttg 427
           ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     581 aggatgggcaggaaaacagatcctgttgtggatatttatttgaacgggattacagatttg 640

Qy     428 aaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttgatg 487
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     641 aaatgaagtcacaaagtgagcattaccaatgagaggaaaacagacgagaaaatcttgatg 700

Qy     488 g-ttcacaagacatgcaacaaacaaaatggaatactgtgatgacacgag--cagccaact 544
           | |||||||||||||||||||||||||||||||||||||||||||| |||     | | ||
Db     701 gcttcacaagacatgcaacaaacaaaatggaatactgtgatgacatgaggcagccaagct 760

Qy     545 ggggaggagat-accacggggcaga-ggtcaggattctggccctgctgcctaa 595
           |||||||||||| |||||||||||| |||||||||||||||||||||||||
Db     761 ggggaggagataaccacggggcagagggtcaggattctggccctgctgcctaa 813
```

RESULT 10
Z33445
ID Z33445 standard; cDNA; 359 BP.
XX
AC Z33445;
XX
DT 08-DEC-1999 (first entry)
XX
DE Human prostate cancer-associated EST 23.
XX
KW Expressed sequence tag; EST; prostate tumor; antitumor; treatment;
KW gene therapy; tissue specificity human; ss.
XX
OS Homo sapiens.
XX
PN DE19811193-A1.
XX
PD 16-SEP-1999.
XX
PF 10-MAR-1998; 98DE-1011193.
XX
PR 10-MAR-1998; 98DE-1011193.
XX
PA (META-) METAGEN GES GENOMFORSCHUNG MBH.
XX
PI Specht T, Hinzmann B, Schmitt A, Pilarsky C, Dahl E, Rosenthal A;
XX
DR WPI; 1999-519628/44.
DR P-PSDB; Y48243.
XX
PT New nucleic acid expressed at high level in prostatic tumor tissue and
PT encoded polypeptides, useful for treating cancer and screening for
PT therapeutic agents -
XX
PS Claim 1a; 87; 166pp; German.
XX
CC This invention describes novel nucleic acid sequences (A) that are
CC expressed at high level in prostatic tumor tissue and encode gene
CC products or their fragments. The products of the invention have
CC antitumor activity. Polypeptides (I) encoded by (A) are used: (i) for
CC identifying agents for treatment of prostatic cancer and (ii) for therapy
CC of prostate cancer, optionally where expressed by gene therapy methods.
CC (A) is also used to isolate full-length genes (for gene therapy) and
CC for recombinant production of (I), which can be used to raise specific
CC antibodies. (A) are identified by assembly of ESTs (expressed sequence
CC tags) before they are analyzed for expression pattern (tissue
CC specificity). This approach eliminates many of the false results, as
CC regards tissue specificity, associated with known methods that use
CC single (usually short) ESTs. Z33423-Z33476 represent expressed sequence
CC tags described in the method of the invention.
XX
SQ Sequence 359 BP; 121 A; 75 C; 94 G; 69 T; 0 other;

```
  Query Match             40.4%;  Score 289.8;  DB 20;  Length 359;
  Best Local Similarity   99.0%;  Pred. No. 1e-79;
  Matches  302;  Conservative    0;  Mismatches    2;  Indels    1;  Gaps    1;

Qy       1 ggagatttgtgtggtttgcagccgagggagaccaggaagatctgcatggtgggaaggacc 60
           |||||||||||||  ||||||||||||||||||||||||||||||||||||||||||||
Db      56 ggagatttgtgtgg-ctgcagccgagggagaccaggaagatctgcatggtgggaaggacc 114

Qy      61 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     115 tgatgatacagaggtgagaaataagaaaggctgctgactttaccatctgaggccacacat 174

Qy     121 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 180
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     175 ctgctgaaatggagataattaacatcactagaaacagcaagatgacaatataatgtctaa 234

Qy     181 gtagtgacatgtttttgcacatttccagccctttttaaatatccacacacacaggaagcac 240
           |||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db     235 gtagtgacatgtttttgcacatttccagccctttttaaatatccacacacacaggaagcac 294

Qy     241 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 300
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     295 aaaaggaagcacagagatccctgggagaaatgcccggccgccatcttgggtcatcgatga 354

Qy     301 gcctc 305
           |||||
Db     355 gcctc 359
```

RESULT 11
X37486
ID X37486 standard; cDNA; 597 BP.
XX
AC X37486;
XX
DT 06-JUL-1999 (first entry)
XX
DE Human secreted protein cDNA fragment containing gene 36.
XX
KW Human; secreted protein; treatment; prevention; protein therapy; AIDS;
KW gene therapy; diagnosis; cancer; tumour; neurodegenerative disorder;
KW developmental abnormality; fetal deficiency; blood disorder; leukemia;
KW immune system disease; autoimmune disease; hepatic disease; lymphoma;
KW renal disease; inflammation; allergy; Alzheimer's disease; schizophrenia;
KW cognitive disorder; prostate disease; skeletal; cardiac; muscle disorder;
KW pulmonary disorder; transplant rejection; osteoclast; osteoporosis;
KW arthritis; malignancy; digestive; endocrine; infection; ss.
XX
OS Homo sapiens.
XX
PN WO9918208-A1.
XX
PD 15-APR-1999.
XX

PF 01-OCT-1998; 98WO-US20775.
XX
PR 02-OCT-1997; 97US-0060884.
PR 02-OCT-1997; 97US-0060833.
PR 02-OCT-1997; 97US-0060836.
PR 02-OCT-1997; 97US-0060837.
PR 02-OCT-1997; 97US-0060838.
PR 02-OCT-1997; 97US-0060839.
PR 02-OCT-1997; 97US-0060843.
PR 02-OCT-1997; 97US-0060862.
PR 02-OCT-1997; 97US-0060866.
PR 02-OCT-1997; 97US-0060874.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Carter KC, Duan DR, Endress GA, Feng P, Ferrie AM;
PI Florence KA, Greene JM, Janat F, Lafleur DW, Ni J;
PI Rosen CA, Ruben SM, Shi Y, Young P, Yu G;
XX
DR WPI; 1999-264022/22.
DR P-PSDB; Y07887.
XX
PT New isolated human genes and the secreted polypeptides they encode
XX
PS Claim 1a; Page 247; 368pp; English.
XX
CC This invention describes novel isolated human genes and the secreted
CC proteins they encode. The products of the invention are useful for
CC preventing, treating or ameliorating medical conditions, e.g. by protein
CC or gene therapy. Also pathological conditions can be diagnosed by
CC determining the amount of the new polypeptides in a sample or by
CC determining the presence of mutations in the new polynucleotides.
CC Specific uses are described for each of the 101 polynucleotides, based on
CC which tissues they are most highly expressed in, and include developing
CC products for the diagnosis or treatment of cancer, tumours,
CC neurodegenerative disorders, developmental abnormalities and fetal
CC deficiencies, blood disorders, leukemias, diseases of the immune system,
CC autoimmune diseases, hepatic and renal disease, lymphomas, inflammation,
CC allergies, Alzheimer's and cognitive disorders, schizophrenia, prostate
CC disease, skeletal or cardiac muscle disorders, pulmonary disorders,
CC transplant rejection, disorders involving osteoclasts such as
CC osteoporosis, arthritis or malignancies, digestive/endocrine disorders,
CC infections and AIDS. The human secreted proteins of the invention are
CC represented in Y07852-Y07993 and the encoding nucleic acids are
CC represented in X37451-X37552.
XX
SQ Sequence 597 BP; 181 A; 131 C; 134 G; 150 T; 1 other;

Query Match 35.8%; Score 257; DB 20; Length 597;
Best Local Similarity 95.8%; Pred. No. 1.7e-69;
Matches 316; Conservative 1; Mismatches 7; Indels 6; Gaps 5;

```
Qy    272 gcccggccgccatcttgggtcatcgatgagcctcgccctgtgcctgntcccgcttgtgag 331
          ||||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db     54 gcccggccgccatcttgggtcatcgatgagcctcgccctgtgcctggtcccgcttgtgag 113

Qy    332 ggaaggacattagaaaatgaattgatgtgttccttaaaggat-ggcaggaaaacagatcc 390
          |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||||
Db    114 ggaaggacattagaaaatgaattgatgtgttccttaaaggatgggcaggaaaacagatcc 173

Qy    391 tgttgtggatatttatttgaacgggattacagatttgaaatgaagtcacaaagtgagcat 450
          |||||||||||||||||||||:||||||||||||||||||||||||||||||||||||
Db    174 tgttgtggatatttatttgaacgggwttacagatttgaaatgaagtcacaaagtgagcat 233

Qy    451 taccaatgagaggaaaacagacgagaaaatcttgatgg-ttcacaagacatgcaacaaac 509
          |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||
Db    234 taccaatgagaggaaaacagacgagaaaatcttgatggcttcacaagacatgcaacaaac 293

Qy    510 aaaatggaatactgtgatgacacgag--cagccaactggggaggagat-accacggggca 566
          |||||||||||||||||||| ||| |  | | ||||||||||||| ||||||||||
Db    294 aaaatggaatactgtgatgacatgaggcagccaagctggggaggagataaccacggggca 353

Qy    567 ga-ggtcaggattctggccctgctgcctaa 595
          || |||||||||||||||||||||||||||
Db    354 gagggtcaggattctggccctgctgcctaa 383
```

RESULT 12
A06520/c
ID A06520 standard; cDNA; 301 BP.
XX
AC A06520;
XX
DT 13-JUN-2000 (first entry)
XX
DE Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:287.
XX
KW Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
KW immunogenic; cytostatic; vaccine; ss.
XX
OS Homo sapiens.
XX
PN WO200004149-A2.
XX
PD 27-JAN-2000.
XX
PF 14-JUL-1999; 99WO-US15838.
XX
PR 14-JUL-1998; 98US-0115453.
PR 14-JUL-1998; 98US-0116134.
PR 23-SEP-1998; 98US-0159812.
PR 23-SEP-1998; 98US-0159822.
PR 15-JAN-1999; 99US-0232149.
PR 15-JAN-1999; 99US-0232880.
PR 09-APR-1999; 99US-0288946.
XX
PA (CORI-) CORIXA CORP.
XX
PI Dillon DC, Harlocker SL, Yuqiu J, Xu J, Mitcham JL;
XX
DR WPI; 2000-171268/15.
XX
PT New polypeptide useful for treating and diagnosing prostate cancer
PT comprises an immunogenic portion of prostate tumor protein -
XX
PS Claim 1; Page 192; 263pp; English.
XX
CC The present invention describes isolated polypeptides, comprising an
CC immunogenic portion of a prostate tumour protein (PTP). The polypeptides
CC and polynucleotides encoding them have cytostatic activity and can be
CC used in vaccines and in gene therapy. The polypeptides and
CC polynucleotides encoding them, antigen presenting cells which express
CC the polypeptides, antibodies against the polypeptides and vaccines
CC comprising them can be used for inhibiting the development of prostate
CC cancer in a patient. The polypeptides can be used to generate antibodies
CC or anti-idiotypic antibodies for passive immuno therapy. A portion of
CC the polynucleotides encoding the polypeptides can be used as a probe or
CC to modulate the expression of the polypeptides. A06241 to A06691 and
CC Y82000 to Y82020 represent sequences used in the exemplification of the
CC present invention.
XX
SQ Sequence 301 BP; 76 A; 58 C; 70 G; 97 T; 0 other;

Query Match 13.1%; Score 93.8; DB 21; Length 301;
Best Local Similarity 92.3%; Pred. No. 2.2e-19;
Matches 143; Conservative 0; Mismatches 7; Indels 5; Gaps 4;

```
Qy    446 agcattaccaatgagaggaaaacagacgagaaaatcttgatgg-ttcacaagacatgcaa 504
          |||||||||||||||||||||||||||||||||||||||||||| ||||||||||||||||
Db    301 AGCATTACCAATGAGAGGAAAACAGACGAGAAAATCTTGATGGCTTCACAAGACATGCAA 242

Qy    505 caaacaaaatggaatactgtgatgacacgag--cagccaactggggaggagat-accacg 561
          |||||||||||||||||||||| ||| |||     | | |||||||||||||| ||||||
Db    241 CAAACAAAATGGAATACTGTGATAACATGAGGCAGCCAAGCTGGGGAGGAGATAACCACG 182
```

```
Qy    562 gggcaga-ggtcaggattctggccctgctgcctaa 595
          ||||||| ||||||||||||||||||||||||||||
Db    181 GGGCAGAGGGTCAGGATTCTGGCCCTGCTGCCTAA 147
```

RESULT 13
V33791
ID V33791 standard; cDNA; 123 BP.
XX
AC V33791;
XX
DT 30-DEC-1998 (first entry)
XX
DE Prostate cancer antigen (PCA3) gene transcription start site.
XX
KW Prostate cancer antigen gene transcription start site; PCA3;
KW prostatic cancer; PC; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT misc_feature 122..123
FT /*tag= a
FT /note= "Splice acceptor site"
XX
PN WO9845420-A1.
XX
PD 15-OCT-1998.
XX
PF 09-APR-1998; 98WO-CA00346.
XX
PR 10-APR-1997; 97US-0041836.
XX
PA (DIAG-) DIAGNOCURE INC.
XX
PI Bussemakers MJG;
XX
DR WPI; 1998-568347/48.
XX
PT New nucleic acid encoding prostate cancer antigen 3 - for diagnosis,
PT prevention and treatment of prostatic cancer
XX
PS Example 3; Fig 4; 111pp; English.
XX
CC The present sequence represents a transcription start site sequence
CC of the prostate cancer antigen (PCA3) gene. The invention claims for
CC PCA3 cDNA variants and the proteins they encode. The invention also
CC claims for antibodies against PCA3 protein. The antibodies are
CC claimed to be useful for detecting PCA3 protein in immunoassay tests,
CC for diagnosing, assessing and prognosing of prostatic cancer (PC).
CC Antibodies, optionally coupled to a cytotoxin or radioisotope, and
CC nucleic acids antisense to PCA3 cDNA are claimed to be useful for
CC treating PC, while determining elevated levels of PCA3 (as RNA or
CC protein) is useful for detecting a predisposition to development of
CC PC, e.g. in prenatal tests. Detecting PCA3 protein allows
CC differentiation between malignant and benign prostatic disease,
CC and the level of PCA3 expression allows correlation with the grade of
CC tumour. PCA3 protein and its fragments are also claimed to be useful
CC in vaccines for preventing PC; in drug screens for identifying
CC specific (ant)agonists (potentially useful therapeutically) and for
CC studying protein-DNA interactions.
XX
SQ Sequence 123 BP; 41 A; 19 C; 45 G; 18 T; 0 other;

```
  Query Match              8.6%;  Score 61.4;  DB 19;  Length 123;
  Best Local Similarity   97.3%;  Pred. No. 1.3e-09;
  Matches   73;  Conservative    0;  Mismatches    1;  Indels    1;  Gaps    1;

Qy      1 ggagatttgtgtggtttgcagccgagggagaccaggaagatctgcatggtgggaaggacc 60
          |||||||||||||  ||||||||||||||||||||||||||||||||||||||||||||
Db     50 ggagatttgtgtgg-ctgcagccgagggagaccaggaagatctgcatggtgggaaggacc 108

Qy     61 tgatgatacagaggt 75
          ||||||||||||||
Db    109 tgatgatacagaggt 123
```

RESULT 14
N92768/c
ID N92768 standard; DNA; 9473 BP.
XX
AC N92768;
XX
DT 18-MAY-1990 (first entry)
XX
DE HIV-2 variant HIV-D194 clone.
XX
KW HIV-2; AIDS; HIV-D194; ss;
XX
OS HIV-2.
XX
PN EP347365-A.
XX
PD 20-DEC-1989.
XX
PF 14-JUN-1988; 88EP-0710057.
XX
PR 14-JUN-1988; 88DE-3820223.
XX
PA (CHEM) CHEMOTHERAPEUT GEORG-SPE.
PA (DIAG) DIAGEN.
XX
PI Henco K, von Briesen H, Immelmann A, Kuhnel H, Dietrich U;
PI Rumsamen -, Waigmann H, Adamski M;
XX
DR WPI; 1989-372573/51.
XX
PT New HIV-2 virus variant isolates - used to obtain prods. for identifying
PT infections by HIV-2 or vaccines for protection against AIDS infections.
XX
PS Disclosure; fig.4; 27pp; English.
XX
CC The sequence characterises the clone HIV-D194, it starts with R/U5 region
CC of the LTR and ends with the U5 region. The DNA can be used to raise Abs
CC for serological detection, and polypeptides encoded by the sequence used
CC in vaccination.
XX
SQ Sequence 9473 BP; 3215 A; 1953 C; 2374 G; 1923 T; 8 other;

```
  Query Match              5.0%;  Score 36.2;  DB 10;  Length 9473;
  Best Local Similarity   52.9%;  Pred. No. 0.73;
  Matches   74;  Conservative    0;  Mismatches   66;  Indels    0;  Gaps    0;

Qy    551 gagataccacggggcagaggtcaggattctggccctgctgcctaactgtgcgttatacca 610
          |||    |  | | ||  |   ||| |||| |  ||||| || | ||   |||    |
Db   3842 GAGTCTGCCAGTGCCATCGCAAAGGCTTCTAGTTCTGCTTGCTGATTGGATGTTTGCTCT 3783

Qy    611 atcatttctatttctaccctcaaacaagctgtngaatatctgacttacggttcttntggc 670
          |  | |  ||      | |||   | | ||||  |||||  |||   ||||| || |
Db   3782 AATACTCTTACCCTGTCTCTCCCTCTATCTGTTACATATCCTGCTTTTCCTTCTTTTGAC 3723

Qy    671 ccacattttcatnatccacc 690
          |  || ||| |||||  |
Db   3722 TGTCTATTGCATGATCCATC 3703
```

RESULT 15
X05230/c
ID X05230 standard; DNA; 2689 BP.
XX
AC X05230;
XX
DT 22-APR-1999 (first entry)

XX
DE HIV-2 genomic DNA sequence.
XX
KW HIV-1; HIV-2; Human immunodeficiency virus; primer/probe set; HIV;
KW detection; nucleic acid amplification; PCR; RT PCR; OH PCR; virus;
KW oligonucleotide hybridisation PCR; ss.
XX
OS Human immunodeficiency virus type 2.
XX
PN WO9858086-A2.
XX
PD 23-DEC-1998.
XX
PF 04-JUN-1998; 98WO-US11652.
XX
PR 16-JUN-1997; 97US-0876546.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Abravaya K, Esping CAC, Gorzowski JJ, Hoenle RJ;
PI Kroeger PE, Moore JJ;
XX
DR WPI; 1999-095352/08.
XX
PT Nucleic acid primers and probes for detecting HIV 1 and HIV 2 -
PT using known nucleic acid amplification procedures especially
PT oligonucleotide hybridisation PCR
XX
PS Disclosure; Page 27-28; 35pp; English.
XX
CC The invention provides primer/probe sets for detecting HIV-1 or HIV-2
CC that comprise two primers and at least one probe. The primer/probe sets
CC are useful to detect HIV (i.e. HIV-1 and HIV-2, either separately or
CC simultaneously) in biological samples using known nucleic acid
CC amplification procedures e.g. PCR, reverse transcriptase (RT) PCR and
CC especially oligonucleotide hybridisation PCR (OH PCR); HIV-1 and HIV-2
CC are different viruses each with several subtypes due to the highly
CC mutable nature of the virus (attributed to the inefficiency with which
CC it converts its genetic material (RNA) into DNA to allow it to insert its
CC genetic information into the host and/or recombination of viral genomes
CC from different HIV populations). The sequences are designed to detect all
CC known HIV-1 or HIV-2 subtypes by OH PCR and allow detection of target
CC sequences which are DNA or, sequences which are embedded within the HIV
CC genome and are therefore RNA by RT-PCR. Sequences X05232 to X05253
CC represent specifically claimed primer and probe sequences present in
CC eight different primer/probe sets that are used for detecting HIV-1 and
CC HIV-2. The present sequence represents HIV-1 genomic DNA sequence that
CC can be used as a target sequence in the method of the invention.
XX
SQ Sequence 2689 BP; 1066 A; 487 C; 597 G; 539 T; 0 other;

Query Match 5.0%; Score 35.8; DB 20; Length 2689;
Best Local Similarity 53.8%; Pred. No. 0.5;
Matches 70; Conservative 0; Mismatches 60; Indels 0; Gaps 0;

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Qy    561 ggggcagaggtcaggattctggccctgctgcctaactgtgcgttataccaatcatttcta 620
          | | ||  |   ||| ||||    |||||  || | ||   |||    | |  | || ||
Db   1758 GTGCCATTGCAAAGGCTTCTAATTCTGCTTGCTGATTGGTAGTTTGCTCTAATACTTTTA 1699

Qy    621 tttctaccctcaaacaagctgtngaatatctgacttacggttcttntggcccacattttc 680
             | |||   | | ||||   |||||   ||| |  ||||| || |   |  || |
Db   1698 CCCTGTCTCTCCCTCTATCTGTTATATATCCTGCTTTCCCTTCTTTTGACTGCCTATTGC 1639

Qy    681 atnatccacc 690
          |  ||||| |
Db   1638 AGGATCCATC 1629
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Search completed: December 15, 2000, 11:42:32
Job time: 45380 sec